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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/604,398

07/17/2003

Joseph Carr Meyers

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EXAMINER

BEHNCKE, CHRISTINE M

ART UNIT

PAPER NUMBER

3661

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/25/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/604,398

Applicant(s)

MEYERS ET AL.

Examiner

Christine M. Behncke

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13-30 and 32 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 11, 13-22, 27-30 and 32 is/are rejected.
- 7) ☒ Claim(s) 23-26 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

1. This office action is in response to the Amendment and Remarks filed 30 October 2006, in which claims 11, 13-30 and 32 were presented for examination.

Response to Arguments

2. Applicant's arguments with respect to newly amended claims 11, 13, 14, 17, 28 and 29 have been considered but are moot in view of the new grounds of rejection.

Applicant's arguments filed 30 October 2006 have been fully considered but they are not persuasive. Applicant contends that the reference Holst et al. does not make reference to a wheel slip or a reacceleration threshold. The Examiner respectfully disagrees. The cited portion may not use the same terms as the Applicant, however the described function of determining wheel slip/ratio and reacceleration is disclosed in the cited portion and the related figures. Further the claimed reacceleration threshold is not given a value in the contended claims. Therefore it is within the broadest reasonable interpretation for the reacceleration threshold to be the general increase of the rotational velocity of the monitored wheel.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 15-22, 30 and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Holst et al., US 2001/0037677.

(**Claim 15**) Holst et al. discloses a method of operating an automotive vehicle comprising: initiating a build cycle ([0032]); storing a peak wheel speed after initiating

the build cycle ([0032]); determining a second wheel speed to determine a change in wheel speed from the peak speed ([0032]); and choosing between a first or second wheel lift status in response to the change in wheel speed ([0011]) and a reacceleration threshold ([0038], lines 20-24).

(**Claim 16**) Holst et al. further discloses wherein the first wheel lift status comprises grounded and the second wheel lift status comprises lifted ([0017]).

(**Claim 17**) Holst et al. further discloses wherein the first wheel lift status comprises absolutely grounded and the second wheel lift status comprises absolutely lifted ([0030], [0032], [0038]).

(**Claim 18**) Holst et al. further discloses wherein choosing comprises choosing between a first, second, third or fourth status in response to the change in wheel speed ([0030], [0032], [0038]).

(**Claim 19**) Holst et al. further discloses wherein the first wheel lift status comprises absolutely grounded, the second wheel lift status comprises absolutely lifted, and a third wheel status comprises possibly grounded and the fourth comprises possibly lifted ([0030], [0032], [0038]).

(**Claim 20**) Holst et al. further discloses determining wheel slip ([0038]), wherein choosing comprises choosing between a first or second wheel lift status in response to the change in wheel slip and wheel slip ([0038], Figure 3).

(**Claim 21**) Holst et al. further discloses wherein wheel slip comprises wheel slip ratio ([0038]).

(Claim 22) Holst et al. further discloses wherein the predetermined threshold comprises the reacceleration reference velocity ([0038]).

(Claim 30) Holst et al. discloses a method of controlling an automotive vehicle comprising: initiating an antilock brake monitor mode having a release cycle ([0032], Figure 5); determining a change in wheel speed ([0032]); determining a wheel slip ([0038]); and determining a wheel lift or wheel grounded condition in response to the change in wheel speed and a reacceleration threshold and wheel slip ([0038]).

(Claim 32) Holst et al. further discloses determining wheel lift comprises determining an absolutely lifted, possibly grounded condition or absolutely grounded in response to the antilock brake monitor mode ([0011], [0038]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11, 13, 14, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holst et al. in view of Akuta et al., US 5,370,199.

(Claims 11, 13, 14, and 27) Holst et al. discloses a method of operating an automotive vehicle comprising: initiating a build cycle ([0032]); storing a peak wheel speed after initiating the build cycle ([0032]); and determining a second wheel speed to determine a change in wheel speed from the peak speed ([0032]); determining a slip ratio in response to an applied torque ([0038]) and determining a wheel lift status when

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the change in the wheel speed is greater than a predetermined value ([0011] and [0032]-[0033]). Holst et al. further discloses wherein determining a wheel lift status comprises choosing between a first or second wheel lift status in response to the change in wheel speed ([0011]). Holst et al. further discloses ending a build cycle in response to said slip ratio being negative ([0038], Figure 3).

Holst et al. does not explicitly disclose wherein the wheel lift status is determined in response to the slip ratio. However, Akuta et al. teaches a vehicle traction control system that determines a wheel lift status in response to a determined slip ratio, determined in response to an applied torque (column 1, lines 15-44, column 5, lines 34-42 and column 6, lines 22-35). It would have been obvious to one of ordinary skill in the art to combine the teachings of Akuta et al. with the method of Holst et al. because as Akuta et al. suggests, the slip ratio has an important and detectable relation to the lateral acceleration acting on the vehicle, which indicates the likelihood on the non-driven wheel lift (column 6, lines 22-35 and figure 9).

Claim Rejections - 35 USC § 103

5. Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szabo et al., US 7,040,722, in view of Akuta et al., US 5,370,199.

(**Claim 28**) Szabo et al. discloses a method of operating an automotive vehicle initiating an antilock brake monitor mode when the roll control system suspects lift (step 7) and the driver is braking above a minimum pressure level (Figure 2, column 3, lines 53-66); and determining wheel lift in response to the level of wheel deceleration generated while the pressure is being released in the antilock brake monitor mode

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(column 3, line 62-column 4, line 8). Szabo et al. does not disclose determining a slip ratio and determining wheel lift in response to the slip ratio. However, Akuta et al. teaches a vehicle traction control system that determines a wheel lift status in response to a determined slip ratio, determined in response to an applied torque (column 1, lines 15-44, column 5, lines 34-42 and column 6, lines 22-35). It would have been obvious to one of ordinary skill in the art to combine the teachings of Akuta et al. with the method of Szabo et al. because as Akuta et al. suggests, the slip ratio has an important and detectable relation to the lateral acceleration acting on the vehicle, which indicates the likelihood on the non-driven wheel lift (column 6, lines 22-35 and figure 9) and indicates if the detected wheel speeds accurately reflect the road speed (column 2, lines 57-68).

(**Claim 29**) Szabo et al. further discloses wherein determining wheel lift comprises determining an absolutely lifted, possibly grounded condition or absolutely grounded in response to the antilock brake monitor mode (column 2, lines 3-20).

Allowable Subject Matter

6. **Claims 23-26** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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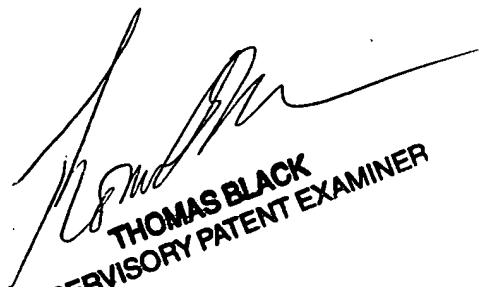
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine M. Behncke whose telephone number is (571) 272-8103. The examiner can normally be reached on Monday - Friday 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CMB



THOMAS BLACK
SUPERVISORY PATENT EXAMINER